CONSTRUCTION OF WASH-HOUSES AND OTHER SMALL BUILDINGS.

MODIFICATION OF METROPOLITAN BUILDINGS ACT.

UNDER the clause in the Buildings Act, which gives her Majesty's Commissioners of Works and Buildings power to modify any rules thereby prescribed, on the representation of the official referees that the objects of the Act would be attained better or as effectually by the adoption of such alteration, the following modification has been issued:—

Whereas the official referees have by their report in writing, bearing date the 8th day of August, 1845, certified to us, that with regard to wash-houses, privies, and other small attached or detached buildings, as offices to dwelling-houses within the limits of the Act before mentioned and referred to, it is their opinion that the rule of the said Act, in schedule C. part 7, under the head "Attached Buildings or Offices," videlicet: "With regard to buildings or offices now built, or hereafter to be built (except green-houses vineries, aviaries, or such like buildings) and that whether such buildings or offices be attached to or detached from the buildings to which they belong, every such building is to be deemed in respect of the walls thereof and all other requisites as a building of the rate to which it would belong if it had been built separately," is inapplicable to such wash-houses and other small attached or detached buildings, as offices to dwelling-houses, and that by the adoption of the modification hereinafter directed of such rule, the objects of the said Act will be attained as effectually. And whereas the official referees have also stated in such report the grounds of such their opinion, and on the investigation thereof it appears to us, the said commissioners, that such opinion is well founded. Now, we the undersigned, two of the Commissioners of Works and Buildings, pursuant to, and in exercise of the power in that behalf given to us by the said recited Act, do direct that such modification may be made in the rules prescribed by the said Act, by inserting after the rule of the said Act, in schedule c. part 7, under the head "Attached Buildings or Offices," above quoted the following words, videlicet:—

"Provided always, with regard to wash-houses, privies, and other small attached or detached buildings built as offices to dwelling-houses in reference to the external walls thereof:—

That if any such office building do not exceed in area one square, nor in height eight feet, then the same must be built of brickwork at the least of the thickness of four inches, or half a brick, except the quoins and the jambs of all door and window openings, which must be at the least eight and a half inches in thickness for a length of eight and a half inches upon every quoin and upon every such jamb, and the same must be built upon footings at the least four inches wider than the wall standing thereon.

And further that if any such office building consisting of one story, and not exceeding eight feet in height, and not exceeding half a square in area, be detached from any other building and from ground not in the same occupation to an extent equal at least to its own height from the ground, then the external walls thereof may be of any materials whatsoever.

But that every such office building must be built in every other respect in conformity with the rules and directions of the said Act."

Which modification being made in such rules, will, in our opinion, give effect to the purposes of the said Act.

As witness our hands this 5th day of September, 1845. (Signed.)

LINCOLN. } Commissioners of Works
A. MILNE. } and Buildings.

NEW EXCHANGE AT AMSTERDAM.—This building was opened with great ceremony on the 8th inst. The dimensions are much more considerable than those of the old Exchange as the following particulars will shew:—Area of the new Exchange 2,833 square ells.; ditto of the old Exchange 2,156 ditto; the new Exchange covered part, 2,043 ditto; ditto, uncovered 790 ditto; the old Exchange, covered 1,163; ditto, uncovered 987.

MAGNESIAN LIMESTONE,

WITH REFERENCE TO ITS PROPERTY AND FITNESS FOR THE COMPOSITION OF MORTAR.

THE magnesian limestone formation, from its resisting and extremely durable character, is exceedingly well adapted for a building stone, as well as for making mortar after it has been burnt to a lime, and consequently is a great acquisition for building purposes. Its hardness appears to be a mean between the extreme hardness of the granitic formation below, and the freedom and softness of the oolite above; and its superiority for architectural purposes, is moreover considerably enhanced from combining in its formation great strength, compactness of texture, and facilities for working; and it is also remarkable in checking and preventing vegetation from gathering on its surface, owing to the presence of the magnesia. This stone is found in abundance in several of the northern counties of England, where it is met with in beds sometimes of considerable thickness, alternating with the new red sandstone formation, which, in several places, lies immediately above the coal deposits; and it also appears occasionally resting upon and traversing the mountain limestones. When observed by a magnifying power, the aggregated particles of many varieties of this stone appear to have been crystallized into fine rhomboidal shapes, and, from this cause, it has generally the appearance of a very fine sandstone; indeed, it has very frequently been taken for such.

The colour of this limestone varies, being of a pale yellow, light or dark cream, sometimes having a reddish appearance, but commonly of a yellowish brown. It is slightly impregnated with silica, oxide of iron, and alumina, but is almost entirely composed of carbonate of magnesia and carbonate of lime: the relative proportions of these ingredients varies very considerably, the carbonate of lime always predominating, there being from fifty-six to sixty-five per cent. of it in combination with from thirty-five to forty-four per cent. of carbonate of magnesia. Many varieties of this stone are, in their natural state, very hard, much more so than calcareous spars, and sparks of fire are usually emitted when struck with a steel instrument.

When a piece of this stone is exposed to the simple test of diluted nitric or muriatic acid, the action of effervescence and the dissolution of its parts are extremely slow and feeble. Pure caustic magnesia, when water is thrown on it, does not become heated and fall to a hydrated powder like other limes; nor does it absorb carbonic acid gas from the atmosphere; but it has a remarkable affinity for silica. During calcination the carbonic acid contained in the magnesia is evolved with greater rapidity than it is from the lime; and when mortar is made from this lime it does not harden and indurate near so quickly as some other mortars, owing to its power of absorbing carbonic acid from the atmosphere being extremely slow; for the *lime*, having a much stronger affinity for this acid than the *magnesia* has, not only absorbs carbonic acid from the *air*, but attracts and deprives the *magnesia* of the greater part of that which it itself absorbs.

The setting property of common mortar—that made from nearly pure carbonate of lime, such as chalk—is dependant upon the slow absorption of carbonic acid; and when mortars absorb this acid with great rapidity, they do not attain to so great a degree of hardness as those which absorb it slowly and regularly; therefore from the very slow attraction between the lime made from this stone and the carbonic acid, mortars made of it become very hard and strong, and are not so liable to decay as some which are made from other limestones; for the action of driving rains and the acids of the atmosphere upon the magnesia is so slight, that it affords a powerful protection to the composition; and, in fact, this mortar usually becomes so hard, strong, and resistable, that the exposed joints are often seen projecting before the bricks and stones—where these have been worn down by atmospheric influences—the mortar being, as it were, untouched or unacted upon. After having been exposed to the action of the atmosphere, even for months together, the calcined stones will still be found in a caustic state; and owing to the great quantity of magnesia in their composition, they do not slake when water is thrown on them near so readily as those limestones which contain a superabundance of carbonate of lime.

From the magnesia in the lime having a considerable affinity for the siliceous and the calcareous sands mixed with it, during the composition the heat obtained by the admixture of water in slacking, as well as from the chemical attraction between the ingredients, causes the oxide of iron and alumina, but more especially the magnesia, somewhat to dissolve, and from the affinity already alluded to, the ingredients, while in this state, in some degree enter into chemical combination with each other, and therefore these mortars possess the peculiar property of hardening and indurating when used in wet situations or under water. But still the degree of hardness to which they are susceptible of attaining is not extremely great when used in the latter situation; and if the best and most durable mortar is particularly required for hydraulic purposes, this, from the foregoing reason, is not much to be depended on without the addition of an aluminous or oxidating substance capable of improving its hardening and indurating properties.

The proportion of clean, sharp sand requisite for proper admixture with this lime depends of course on its nature and quality, and the sort of work for which it is intended to be used; but from observing the action, and from the appearance of a variety of mortars composed with this lime, as well as from several experiments which I have made with it, one part of lime to two parts of clean coarse sand appears to be the best, as also the most usual proportion for dry or damp situations; but when this mortar is used under water, the process of induration is exceedingly slow, and for this kind of work the proportion of sand to the lime should be something less than for the former purpose, or two parts of sand to one and a-half of lime.—JOHN PHILLIPS.

THE SECOND ARCHÆOLOGICAL MEETING AT WINCHESTER.*

A WAR of words has again commenced between the friends of the respective divisions. The mighty *Times* has opened its pages to the disputants, and while it banters both associations, with too little consideration if we may venture to say so, for the ability and learning which were unquestionably displayed at both meetings, leans clearly to the side of Lord Albert Conyngham's party, as comprehending the majority of the original promoters and workers. With the various statements of the two parties our readers have been long acquainted: our own opinion, too, upon the originally insignificant squabble, and the present much-to-be-regretted position of affairs, has been several times expressed; we therefore shall not trouble our readers with any remarks of our own on the present occasion, but proceed to place before them the heads of those papers read at the meeting which relate to architectural antiquities, and will at the end report briefly the ultimate result.

ROMSEY ABBEY CHURCH.

The following is an abstract of a paper on this structure by the Rev. J. L. Petit.†

This ecclesiastical edifice is valuable as presenting more completely the outline and general aspect of a purely Norman conventual church, than any building of equal dimensions in England. For although a considerable portion of the nave belongs to a later style, still, if the whole is compared with the Norman parts that remain, and we notice how carefully the later part of the work is made to harmonize with the earlier parts, it will lead to a conclusion that the dimensions and proportions intended by the original architects are preserved throughout; and in fact the whole design followed as nearly as the difference of styles would permit. The choir, transepts, and tower, evidently retain their original plan of elevation, changed only by the depression of roof and gables, and occasional alterations in the parapets; these are trifling when compared with those which almost every large Norman church in the country has undergone. Many have their choirs extended, or rebuilt on a different

* See p. 443 ante.

† We are indebted to the *Hampshire Chronicle* of the 13th instant, which contains a full report of the meeting.

For Info on OCR and PDF Compression go to our website